Amendment dated January 29, 2004

Reply to Office Action of July 29, 2003

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims:

1. (currently amended) A concentrated nitrogen and phosphorus fertilizer

composition comprising, in combination:

an ammonium phosphite composition having a pH in solution with water in the range of

about 5 to 8, a weight percent of nitrogen in the range of about 6 to 12, and a weight percent of

phosphorus in the range of about 32 to 36 weight percent, said phosphorus comprising a

phosphite ion in solution, the ammonium phosphite composition having a nitrogen:phosphorous

molar ratio of between about 1:1 to about 2:1.

2. (original) The fertilizer of claim 1 in combination with an ammonium phosphate

compound comprising a source of phosphate ions in solution.

3. (previously presented) The fertilizer of claim 1 in combination with ammonium

phosphate wherein the amount of phosphorus from the ammonium phosphate is substantially

equal to the amount of phosphorus from the ammonium phosphite.

4. (original) The fertilizer of claim 1 in a water solution of 9.6 ± 0.6 weight percent

nitrogen and 34 ± 2 weight percent P_2O_5 .

Claims 5-7 (canceled).

8. (currently amended) A nitrogen and phosphorus fertilizer composition comprising

in combination a mixture of anhydrous ammonia, phosphorous acid and water adjusted to

maintain pH in the range of about 5 to 8 where the composition includes nitrogen in the range of

about 6 to about 10 weight percent and phosphorus in the range of between about 22 to about 36

weight percent and the nitrogen:phosphorous molar ratio is between 1:1 and 2.4:1.

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9. (original) The composition of claim 8 adjusted to maintain pH in the range of

about 5.5 to 6.5.

Claims 10-12 (canceled).

13. (previously presented) A method for fertilization of plant material comprising the

step of applying a fertilizer compound as set forth in any of claims 1-4 and 8-9.

14. (currently amended) A method of manufacture of a fertilizer composition

comprising the steps of:

mixing water, a source of nitrogen and phosphorous acid, and maintaining the

temperature of the mixture at less than about 150°F and pH in the range of about 5 to 8 to

provide a fertilizer having a concentration of ammonium phosphite as a source of phosphite ions,

the ammonium phosphite having a nitrogen:phosphorous molar ratio of between about 1:1 to

about 2:1,

wherein the fertilizer composition includes nitrogen in an amount between about 6 to

about 10 weight percent and phosphorus in the form of P₂O₅ in an amount of between about 22

to about 36 weight percent.

15. (currently amended) The process of claim 14 wherein the nitrogen source is

selected from the group consisting of ammonia, anhydrous ammonia, ammonium nitrate and

combinations thereof.

16. (original) The process of claim 14 wherein the pH is in the range of about 5.5 to

6.5.

Claims 17-20 (canceled).

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21. (previously presented) The process of claim 14 wherein the nitrogen—

phosphorus—potassium composition of the fertilizer is 9.8 –34-0.

22. (previously presented) The process of claim 14 wherein the nitrogen—

phosphorus—potassium composition of the fertilizer is 9.6-34-0.

23. (previously presented) The process of claim 14 wherein the nitrogen—

phosphorus—potassium composition of the fertilizer is 6.4-34-0.

24. (previously presented) The process of claim 14 wherein the nitrogen—

phosphorus—potassium composition of the fertilizer is 8.8-29-0.

25. (currently amended) A method of manufacture of a fertilizer composition having

a nitrogen component and a phosphorus component in the form of phosphite ions comprising the

steps of:

mixing water with an acid taken from the group consisting of polyphosphorous acid,

phosphorous acid, analogs, derivatives and mixtures thereof and a nitrogen source at a

temperature below about 150°F and at a pH of about 5-8 to provide a fertilizer having a

concentration of phosphite ions,

wherein the fertilizer composition includes nitrogen in an amount between about 6 to

about 10 weight percent and phosphorus in the form of P₂O₅ in an amount of between about 22

to about 36 weight percent and the nitrogen:phosphorous molar ratio is between 1:1 and 2.4:1.

26. (currently amended) The method of claim 25 wherein ammonia is the nitrogen

source is selected from the group consisting of ammonia, anhydrous ammonia, ammonium

nitrate and combinations thereof.

27. (original) The method of claim 26 wherein the weight percent of nitrogen is about

 9.6 ± 0.4 and the weight percent of phosphite is about 34 ± 2.0 .

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28. (canceled)

29. (previously presented) A product made by the process of any of the claims 14-16

and 21-28.

30. (previously presented) A method of use of the product of claims 1-4 and 8-9 or 29

comprising the step of applying said product in liquid form to plants or soil as a fertilizer or

fungicide, or both.

31. (previously presented) The fertilizer of claim 2 wherein the concentration of

phosphite ions in the fertilizer is greater than the concentration of phosphate ions in the fertilizer.

32. (previously presented) The composition of claim 8 wherein the temperature of the

composition is maintained below about 150°F.

33. (previously presented) The composition of claim 8 wherein the composition

includes ammonium nitrate.

34. (currently amended) The composition of claim 8 wherein the phosphorus includes

a phosphite component selected from the group consisting of ammonium phosphite,

diammonium phosphite, ammonium polyphosphite and combinations thereof.

35. (canceled)

36. (previously presented) The composition of claim 34 wherein the composition

includes a phosphate component.

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37. (previously presented) The composition of claim 36 wherein the phosphate

component is selected from the group consisting of ammonium phosphate, ammonium

orthophosphate, ammonium polyphosphate and mixtures thereof.

38. (previously presented) The composition of claim 36 wherein the phosphate

component is present in the fertilizer in an amount no more than the amount of phosphite

component.

39. (previously presented) The composition of claim 36 wherein the phosphite

component is present in the fertilizer in an amount substantially equal to the amount of

phosphate component.

40. (canceled)

41. (previously presented) The method of claim 14 comprising mixing a phosphate

component to provide a fertilizer composition having a combination of phosphite ions and

phosphate ions.

42. (previously presented) The method of claim 41 wherein the amount of phosphite

ions is greater than the amount of phosphate ions.

43. (previously presented) The method of claim 41 wherein the amount of phosphite

ions is substantially equal to the amount of phosphate ions.

44. (new) The composition of claim 1 wherein the ammonium phosphite composition

has a nitrogen:phosphorous molar ratio of between 1.4:1.

45. (new) The composition of claim 1 wherein the composition includes an

ammonium polyphosphite composition.

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- 46. (new) The composition of claim 34 wherein the ammonium phosphite component has a nitrogen:phosphorous molar ratio of between about 1:1 to about 2:1.
- 47. (new) The composition of claim 46 wherein the ammonium phosphite component has a nitrogen:phosphorous molar ratio of between about 1:1 to about 1.4:1.
- 48. (new) The method of claim 14 wherein the ammonium phosphite composition has a nitrogen:phosphorous molar ratio of 1.4:1.
- 49. (new) The method of claim 25 wherein the phosphite ions are selected from the group consisting of ammonium phosphite, diammonium phosphite, ammonium polyphosphite and combinations thereof.
- 50. (new) The method of claim 25 wherein the ammonium phosphite has a nitrogen:phosphorous molar ratio of 1.4:1.